

American Journal of Science

Established in 1818 by Benjamin Silliman
AN INTERNATIONAL EARTH SCIENCE JOURNAL

EDITORS

C. PAGE CHAMBERLAIN
STANFORD, CALIFORNIA

DANNY M. RYE
NEW HAVEN, CONNECTICUT

ASSOCIATE EDITORS

TO SERVE UNTIL JANUARY 1, 2013

PAUL AHARON
TUSCALOOSA, ALABAMA
ANDREAS LUTTGE
HOUSTON, TEXAS
ANDREAS MULCH
FRANKFURT, GERMANY
ZACHARY SHARP
ALBUQUERQUE, NEW MEXICO

PHILIP D. GINGERICH
ANN ARBOR, MICHIGAN
KATE MAHER
STANFORD, CALIFORNIA
STEPHEN PORTER
SEATTLE, WASHINGTON
STEVEN M. STANLEY
HONOLULU, HAWAII

JOHN W. VALLEY
MADISON, WISCONSIN

TO SERVE UNTIL JANUARY 1, 2014

ROBERT A. BERNER
NEW HAVEN, CONNECTICUT
DONALD E. CANFIELD
ODENSE, DENMARK
DAVID A.D. EVANS
NEW HAVEN, CONNECTICUT
MARK PAGANI
NEW HAVEN, CONNECTICUT
PETER REINERS
TUCSON, ARIZONA

RUTH E. BLAKE
NEW HAVEN, CONNECTICUT
DARREL S. COWAN
SEATTLE, WASHINGTON
MARK GHIORSO
SEATTLE, WASHINGTON
FRANK J. PAZZAGLIA
BETHLEHEM, PENNSYLVANIA
SEAN WILLETT
ZURICH, SWITZERLAND

ETHAN F. BAXTER
BOSTON, MASSACHUSETTS
MARK T. BRANDON
NEW HAVEN, CONNECTICUT
JOHN M. FERRY
BALTIMORE, MARYLAND
JOHN I. GARVER
SCHENECTADY, NEW YORK

TO SERVE UNTIL JANUARY 1, 2015

DENNIS K. BIRD
STANFORD, CALIFORNIA
BARB DUTROW
BATON ROUGE, LOUISIANA
GRANT GARVEN
MEDFORD, MASSACHUSETTS
JEFFREY J. PARK
NEW HAVEN, CONNECTICUT

JONATHAN PAYNE
STANFORD, CALIFORNIA

TO SERVE UNTIL JANUARY 1, 2016

JAY J. AGUE
NEW HAVEN, CONNECTICUT
WILLIAM H. CASEY
DAVIS, CALIFORNIA
JAMES CONNOLLY
ZURICH, SWITZERLAND
RICHARD J. WALKER
COLLEGE PARK, MARYLAND
SIMON WILDE
PERTH, AUSTRALIA

EDWARD W. BOLTON
NEW HAVEN, CONNECTICUT
PETER CAWOOD
ST. ANDREWS, SCOTLAND, UK
TIMOTHY W. LYONS
RIVERSIDE, CALIFORNIA
JOSHUA WEST
LOS ANGELES, CALIFORNIA
ROBERT WINTSCH
BLOOMINGTON, INDIANA